

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16640 - L2 Version 1  
Chandra X-Ray Center

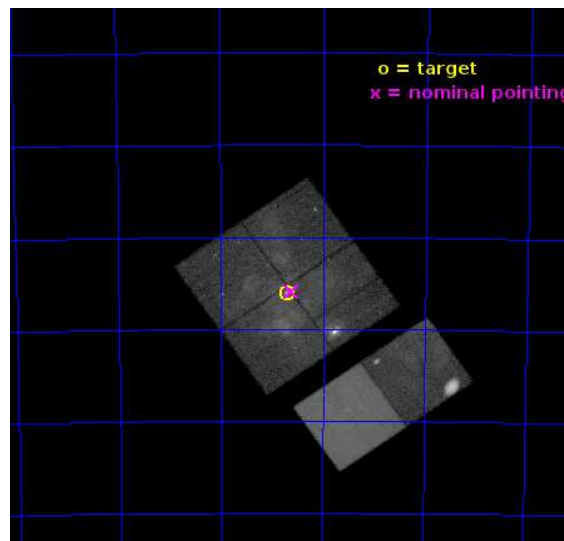
L2 Processing Date : Jul 25 2014

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# 1 Front

seq_num	901116	Sequence number
obs_id	16640	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.654801414826	Nominal RA [deg]
dec_nom	-69.098360567924	Nominal Dec [deg]
roll_nom	145.188265995	Nominal Roll [deg]
revision	1	Processing version of data
ontime	62470.399767339	Sum of GTIs [s]
livetime	61679.361950326	Livetime [s]
ontime0	62467.158776999	Sum of GTIs [s]
ontime1	62467.158767104	Sum of GTIs [s]
ontime2	62470.399767339	Sum of GTIs [s]
ontime3	62470.399767339	Sum of GTIs [s]
ontime6	62467.15880692	Sum of GTIs [s]
ontime7	62470.399767339	Sum of GTIs [s]
l2events	470434	Number of level 2 events

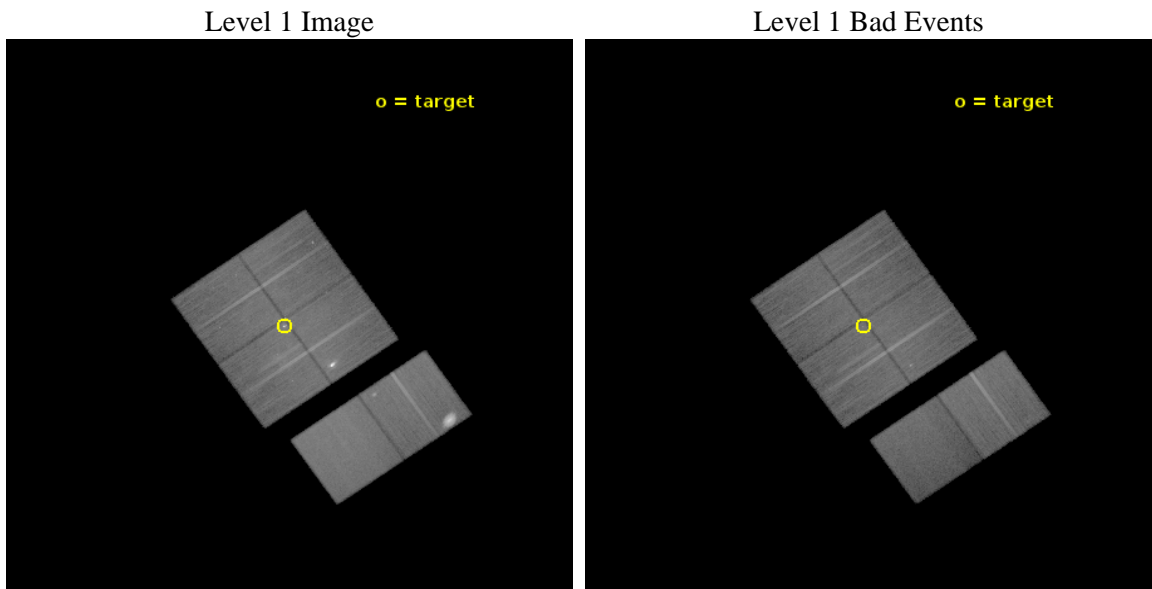




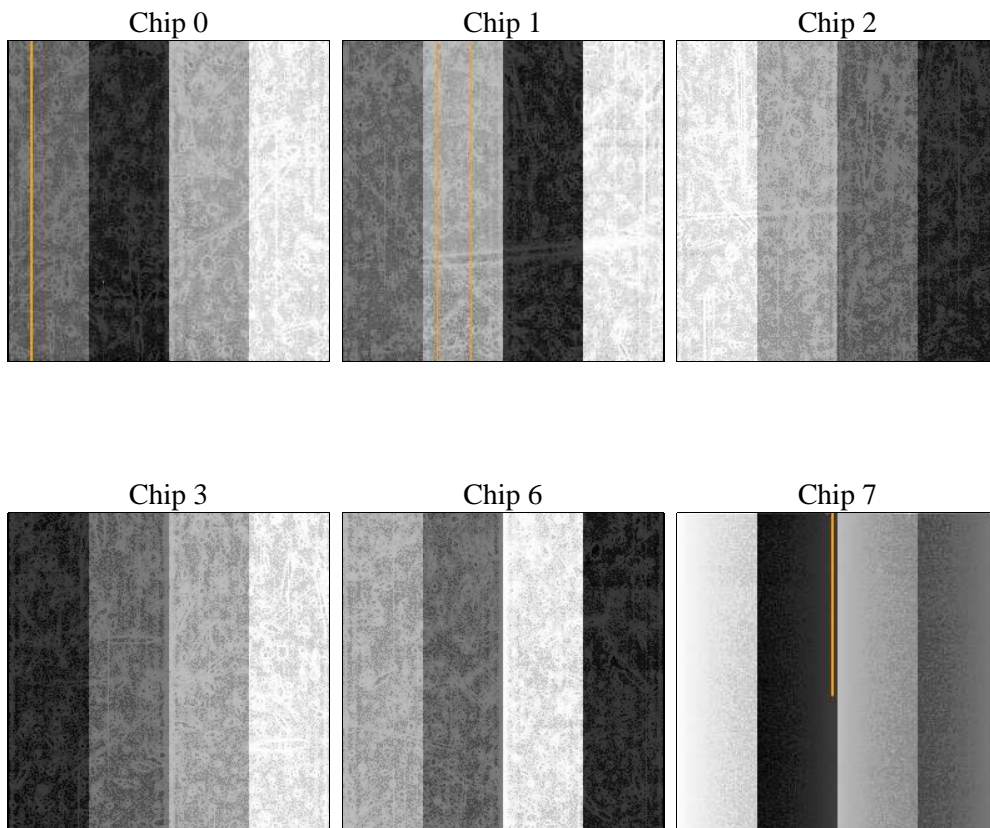
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	62500.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	62470.399767339	Sum of GTIs [s]
caldsver	4.6.2	&#160	ontime0	62467.158776999	Sum of GTIs [s]
date	2014-07-25T16:40:27	Date and time of file creation	ontime1	62467.158767104	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	62470.399767339	Sum of GTIs [s]
			ontime3	62470.399767339	Sum of GTIs [s]
			ontime6	62467.15880692	Sum of GTIs [s]
			ontime7	62470.399767339	Sum of GTIs [s]
			l1events	1856161	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	264182	262106	330002	296125	354996	348750	grade 0 events	23755	22268	57107	35115	65625	20333
rejected events	217311	215731	243530	237338	256913	176306		8%	8%	17%	11%	18%	5%
rejected %	82%	82%	73%	80%	72%	50%	grade 1 events	189	180	508	282	321	455
								0%	0%	0%	0%	0%	0%
							grade 2 events	9476	9273	13152	9369	13810	37660
								3%	3%	3%	3%	3%	10%
							grade 3 events	3572	3626	4638	3871	5143	15735
								1%	1%	1%	1%	1%	4%
							grade 4 events	3459	3745	4789	3946	5045	15679
								1%	1%	1%	1%	1%	4%
							grade 5 events	11464	12405	10683	13160	13620	35616
								4%	4%	3%	4%	3%	10%
							grade 6 events	6617	7466	6794	6497	8482	83059
								2%	2%	2%	2%	2%	23%
							grade 7 events	205650	203143	232331	223885	242950	140213
								77%	77%	70%	75%	68%	40%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	84.731892	84.65480141482581	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.100548	-69.09836056792426	CCD I3 on	Y	Y
[deg] Pointing Roll	145.051597	145.1882659950035	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	522589507.184000	522588086.75601	CCD S5 on	N	N
Observation start date	2014-07-24T11:44:00	2014-07-24T11:21:26	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	522652007.184000	522652968.2346	On-chip summing requested	N	N
Observation end date	2014-07-25T05:05:40	2014-07-25T05:22:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect

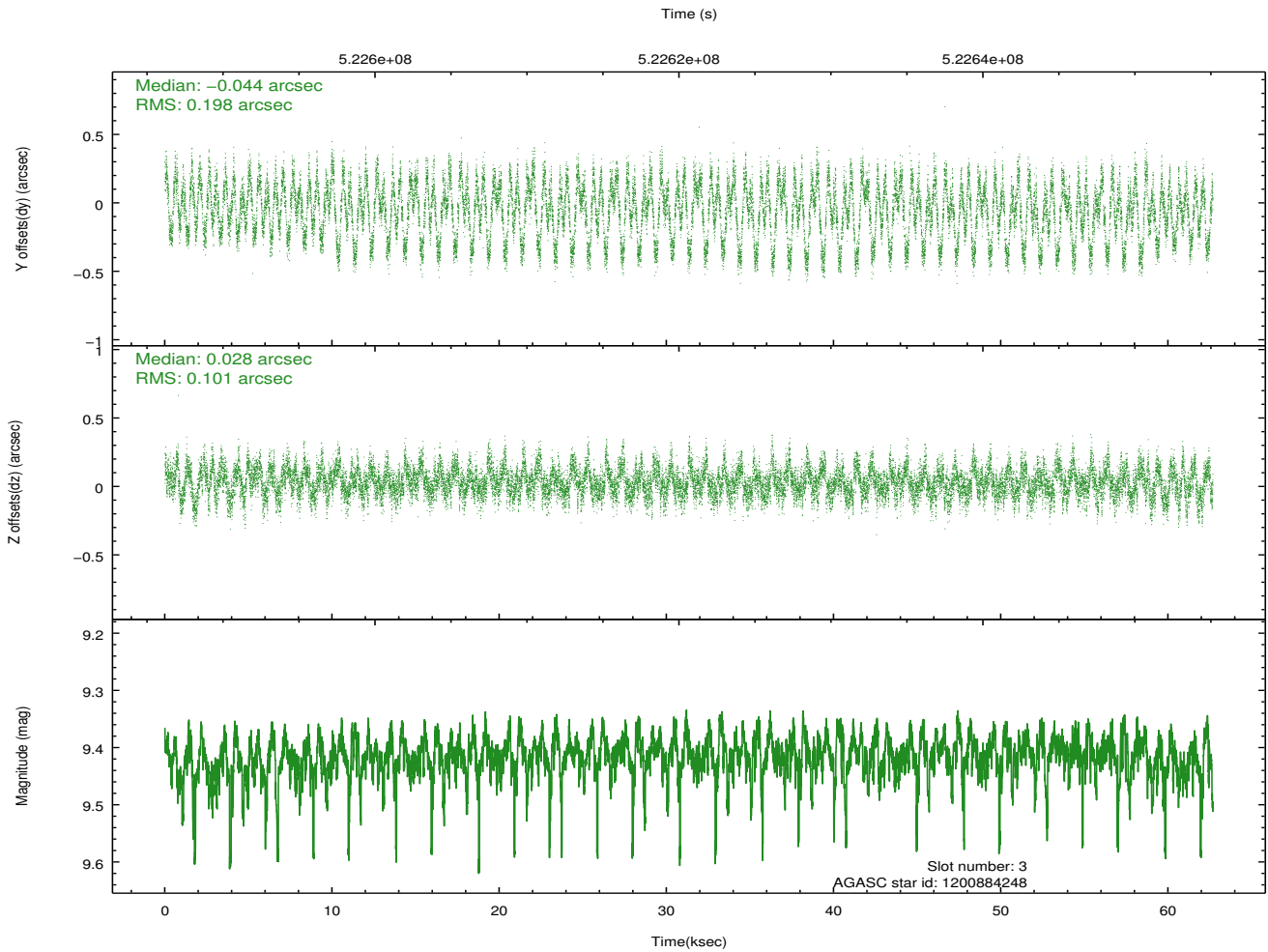
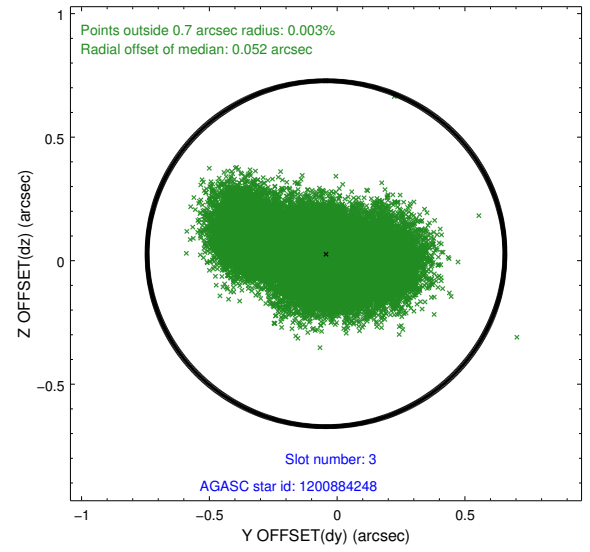
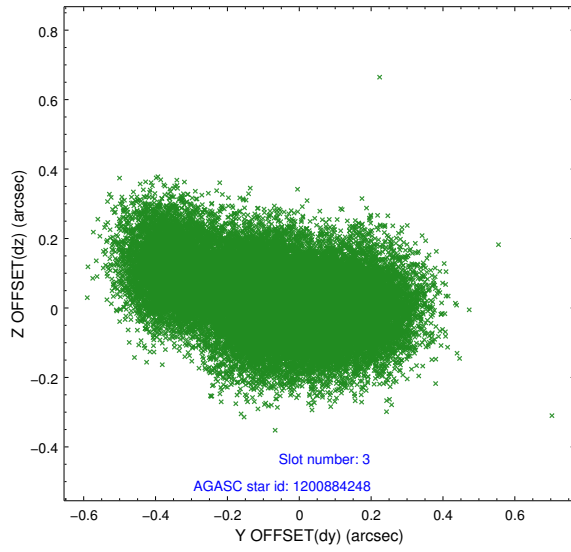


### Slot Statistics

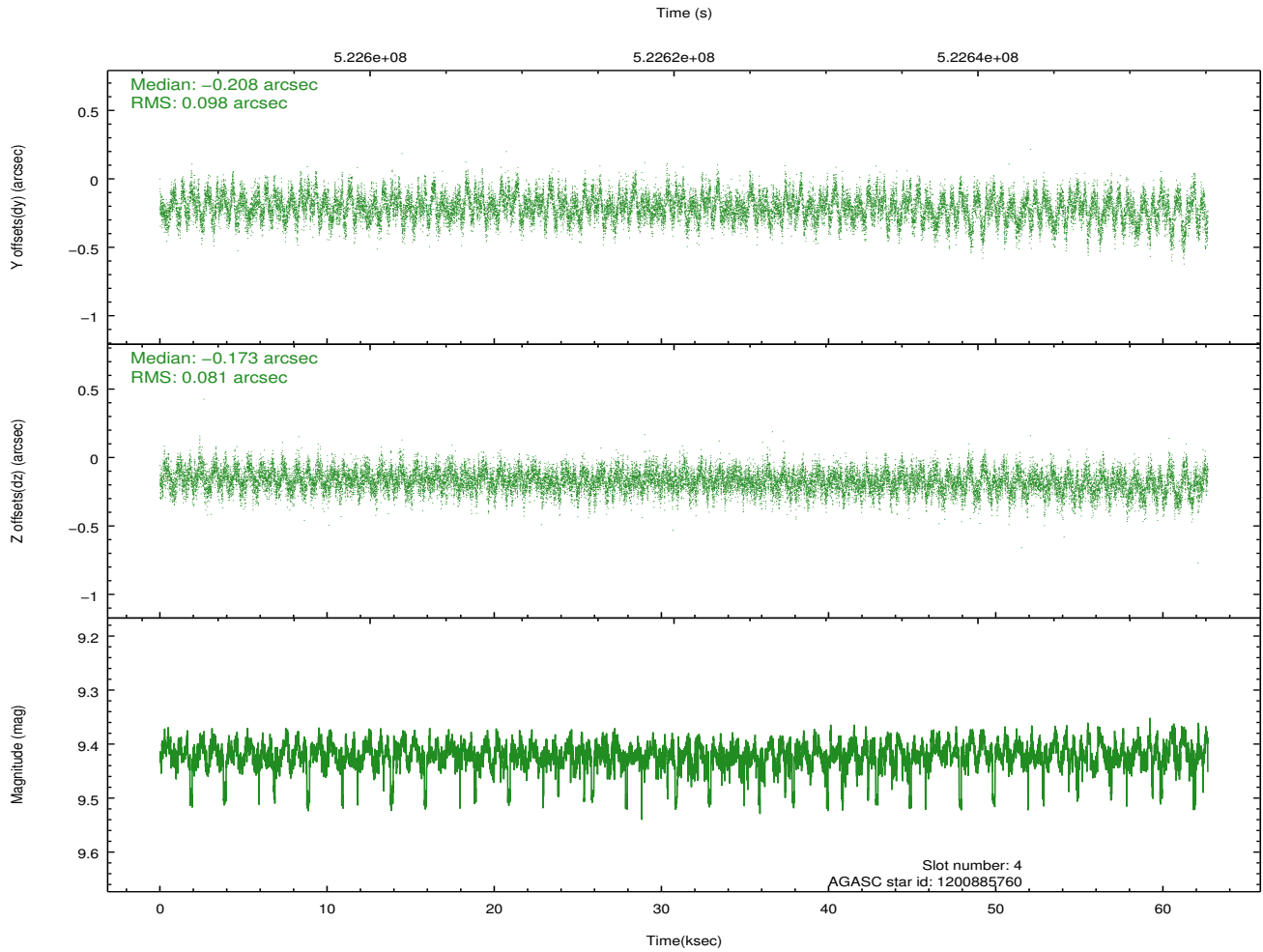
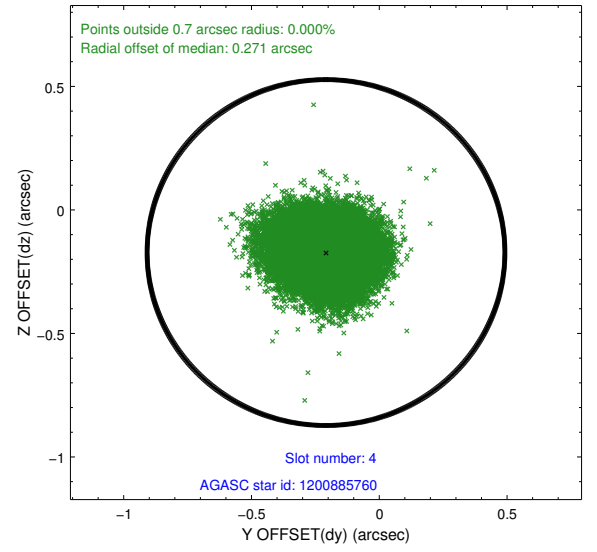
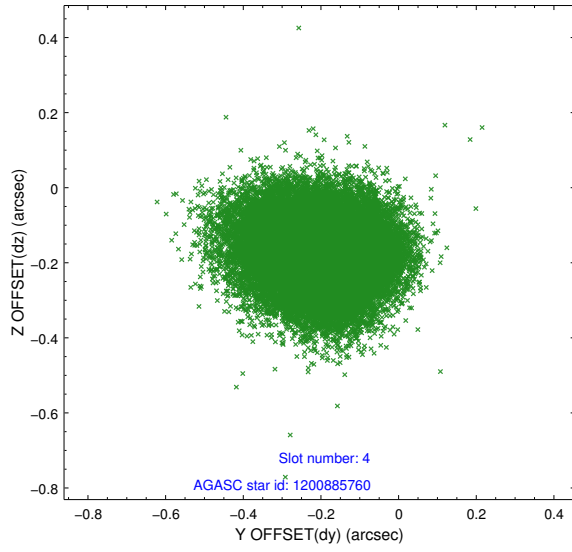
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	6.99	15288	-0.143	-0.088	0.045	0.056	0.000000	0.000000	-778.00	-850.84
1	FID	ACIS-I-4	7.03	15289	0.321	0.105	0.042	0.070	0.000000	0.000000	2136.46	1055.64
2	FID	ACIS-I-5	7.07	15288	-0.275	0.060	0.024	0.035	0.000000	0.000000	-1832.09	1053.26
3	GUIDE	1200884248	9.42	30315	-0.044	0.028	0.241	0.388	83.880915	-68.565170	2017.67	-931.92
4	GUIDE	1200885760	9.42	30542	-0.208	-0.173	0.136	0.217	83.723637	-68.777667	1736.73	-190.74
5	GUIDE	1201018384	9.06	30562	0.076	0.265	0.130	0.221	85.801362	-68.593260	-112.03	-2291.76
6	GUIDE	1201020040	8.60	30564	0.038	0.112	0.092	0.153	85.379163	-68.879396	-233.97	-1129.63
7	GUIDE	1201540776	9.54	30555	0.156	-0.240	0.214	0.328	85.107945	-69.858480	-1945.84	1970.30

## 2.4 Star Slots

### 2.4.1 Slot 3

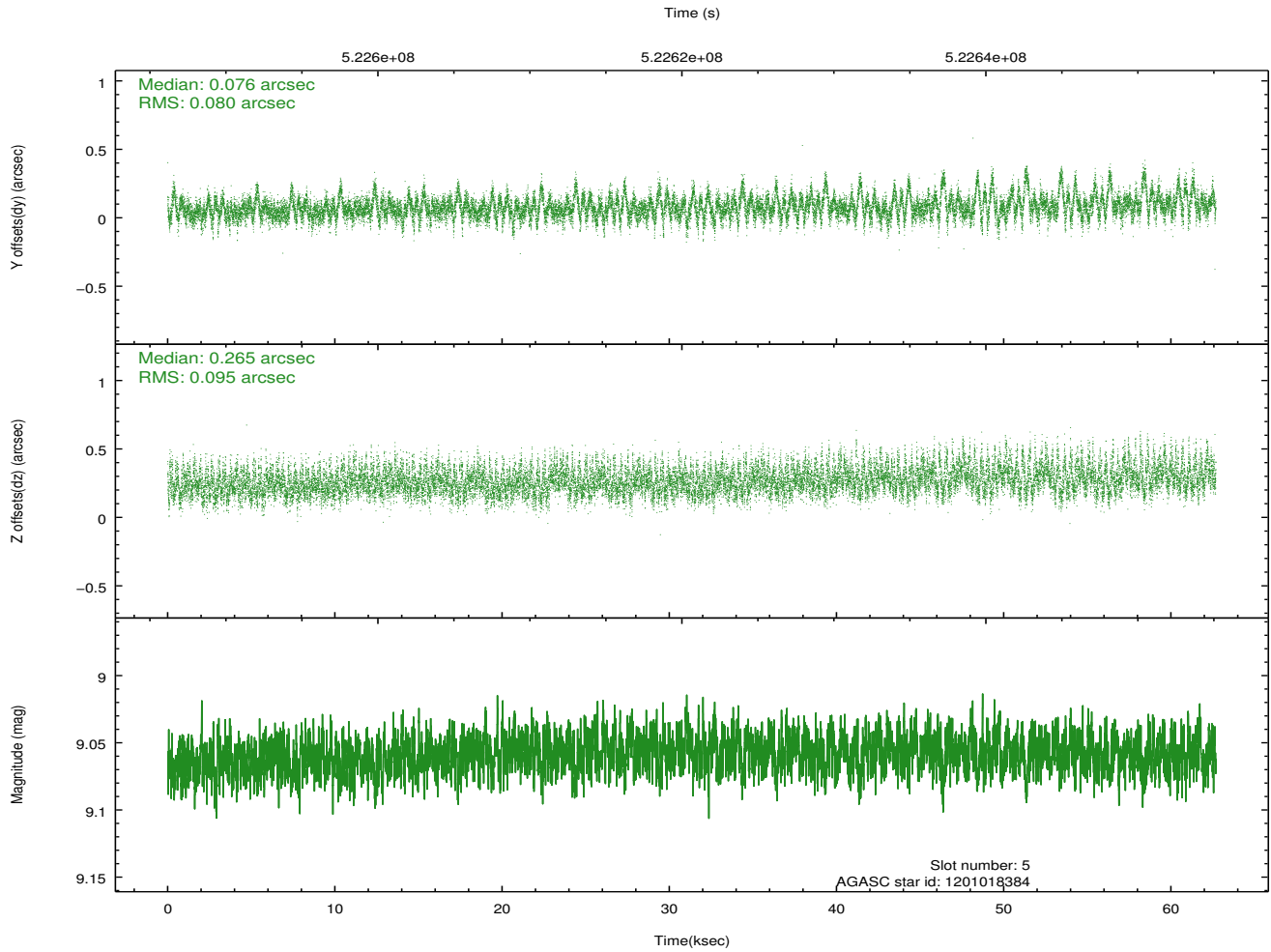
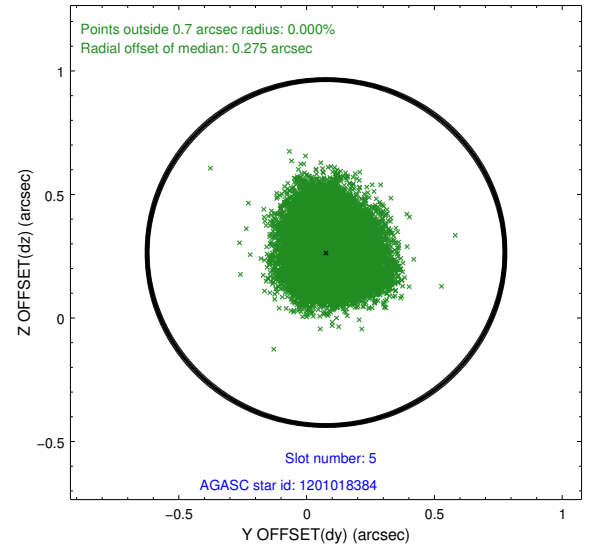
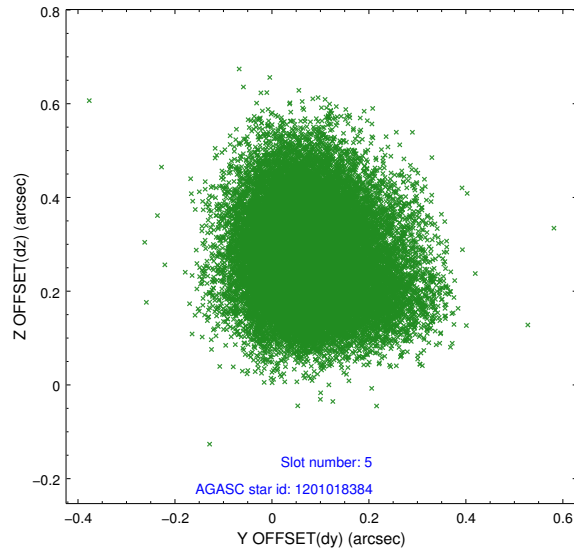


## 2.4.2 Slot 4

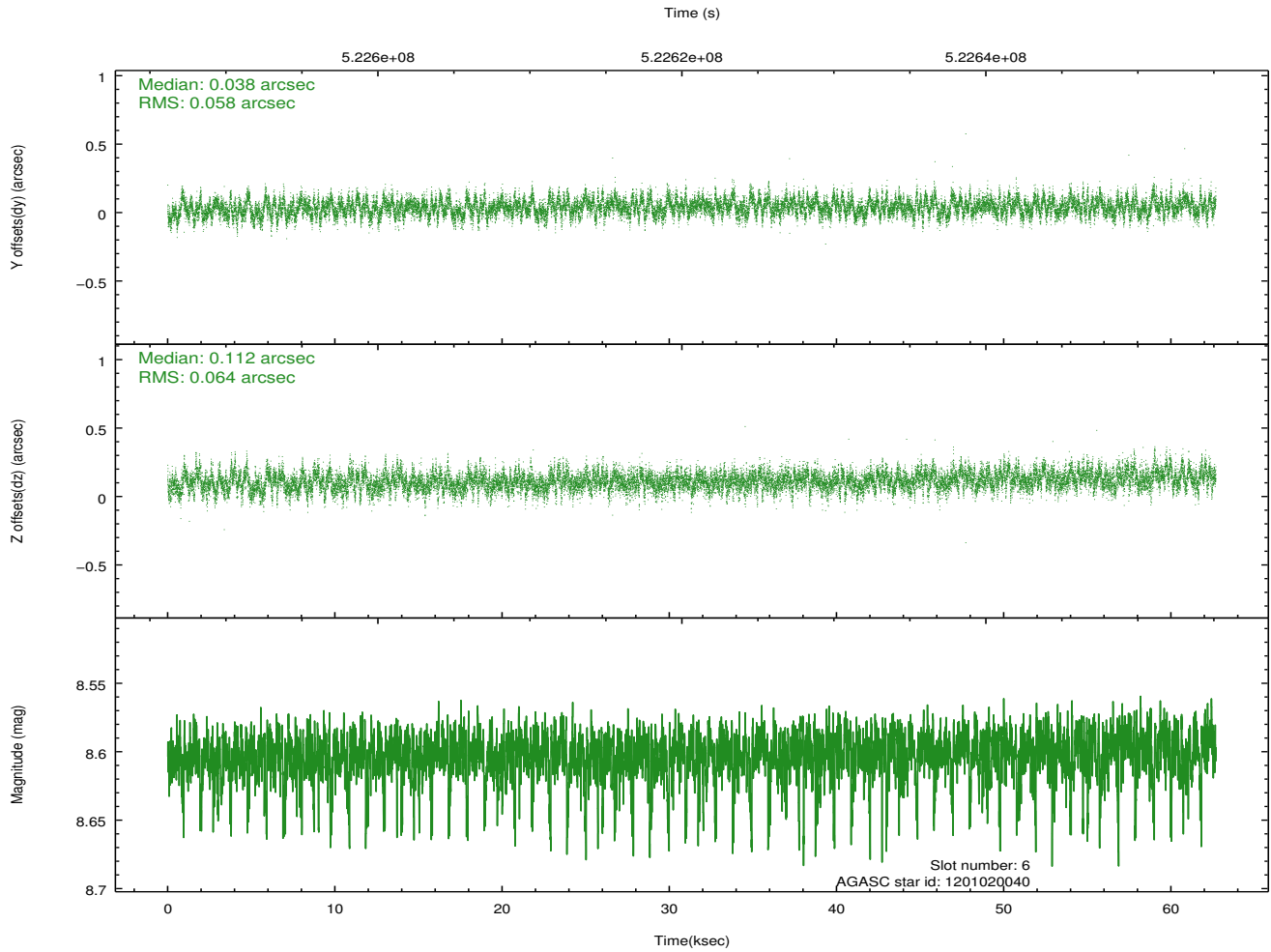
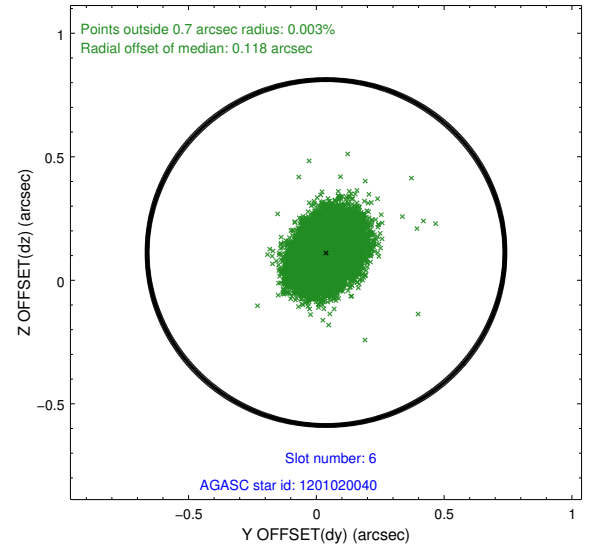
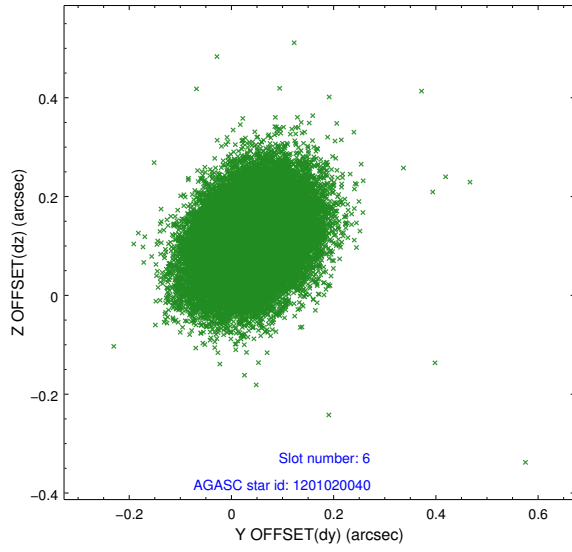




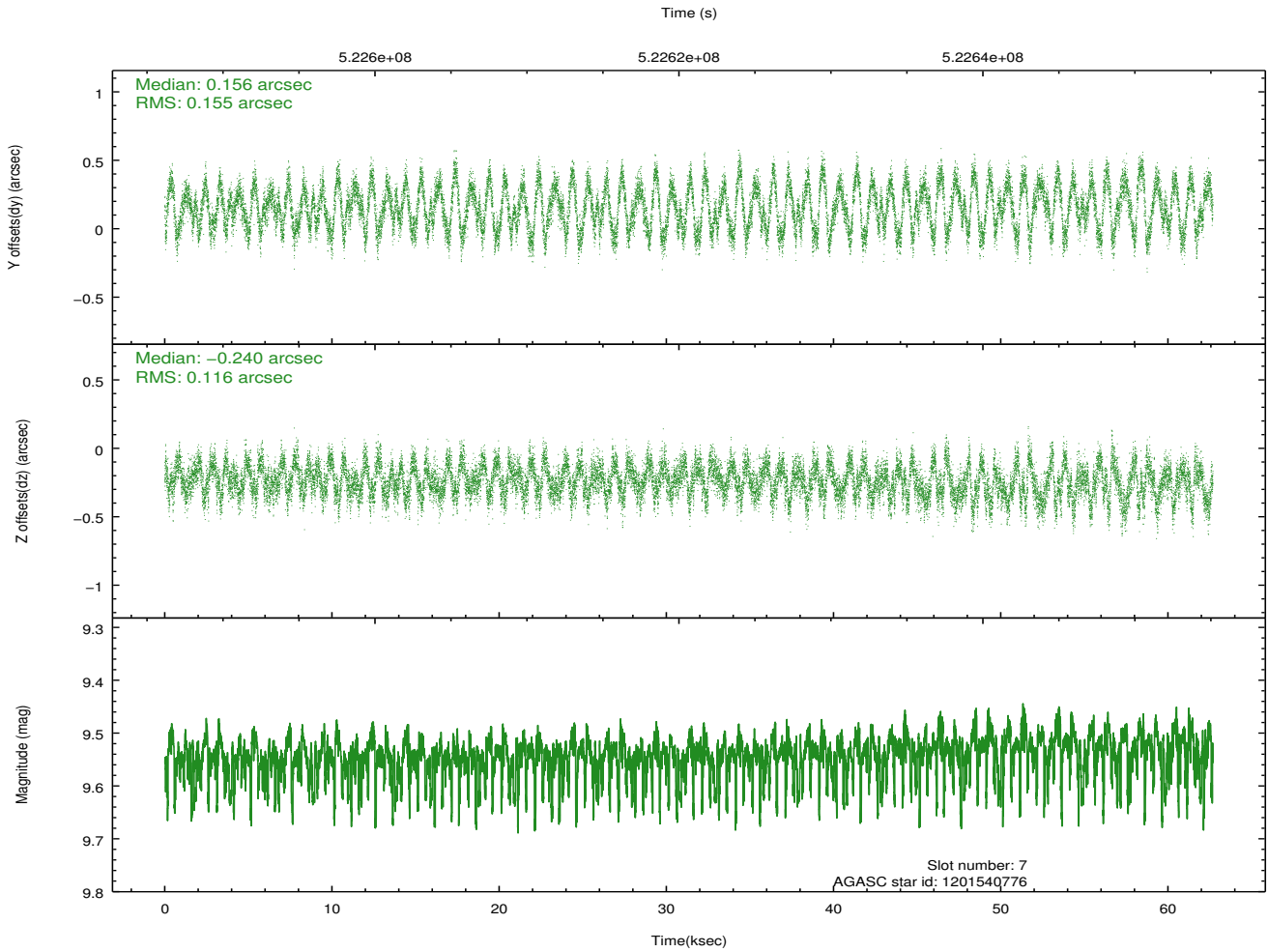
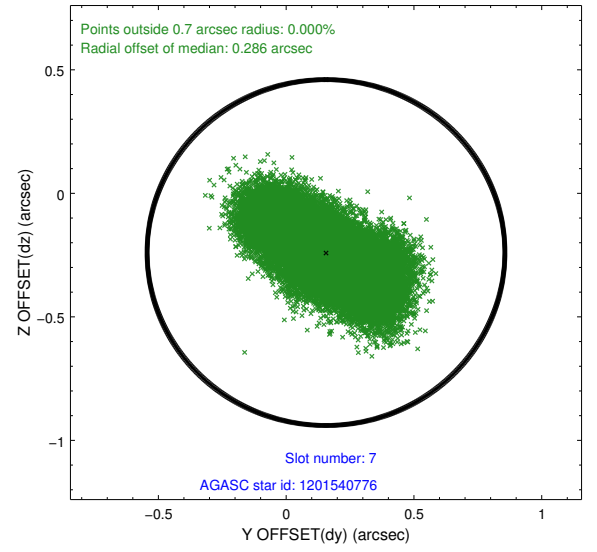
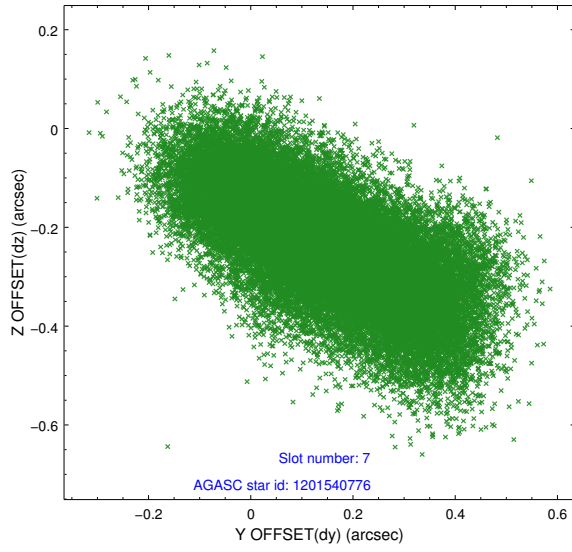
### 2.4.3 Slot 5



## 2.4.4 Slot 6

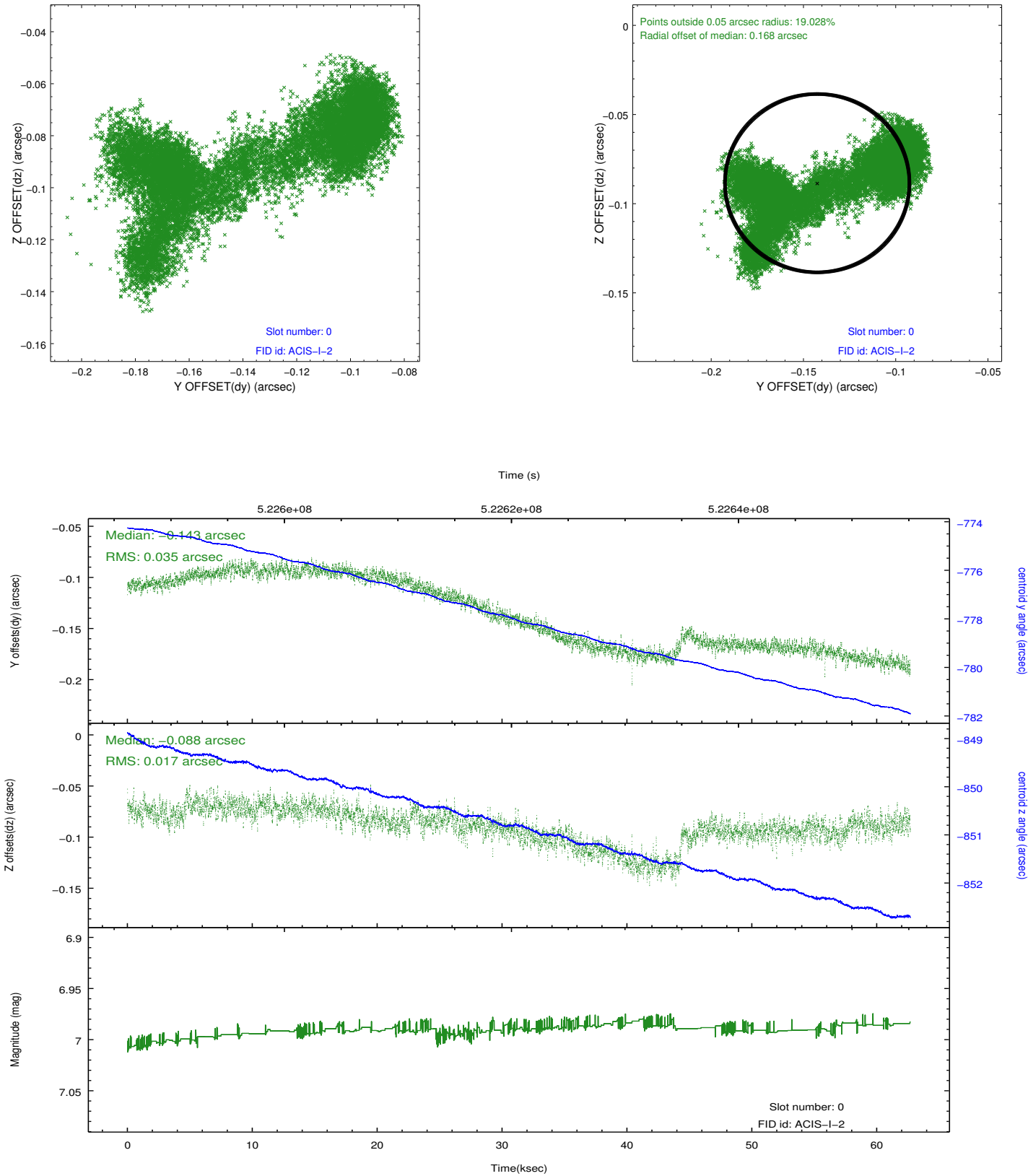


## 2.4.5 Slot 7

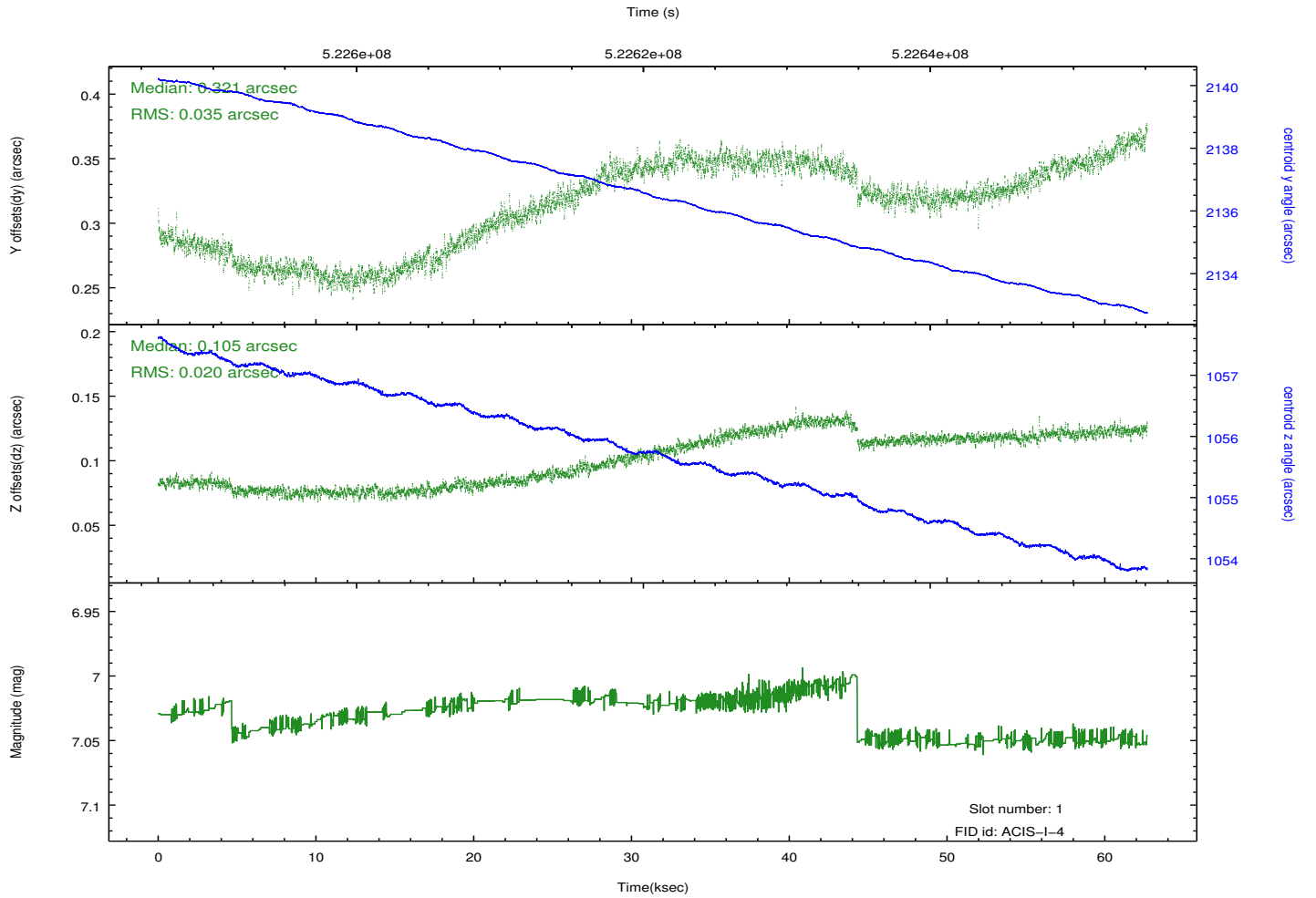
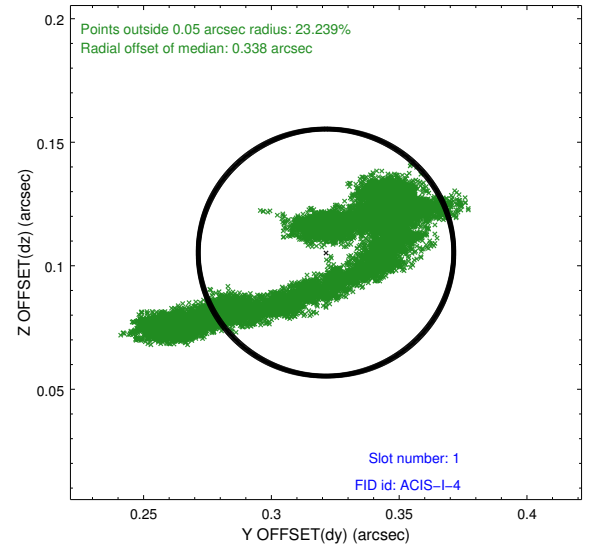
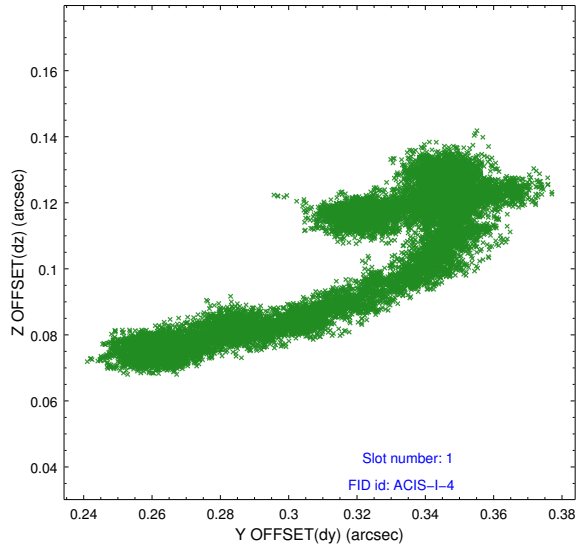


## 2.5 FID Slots

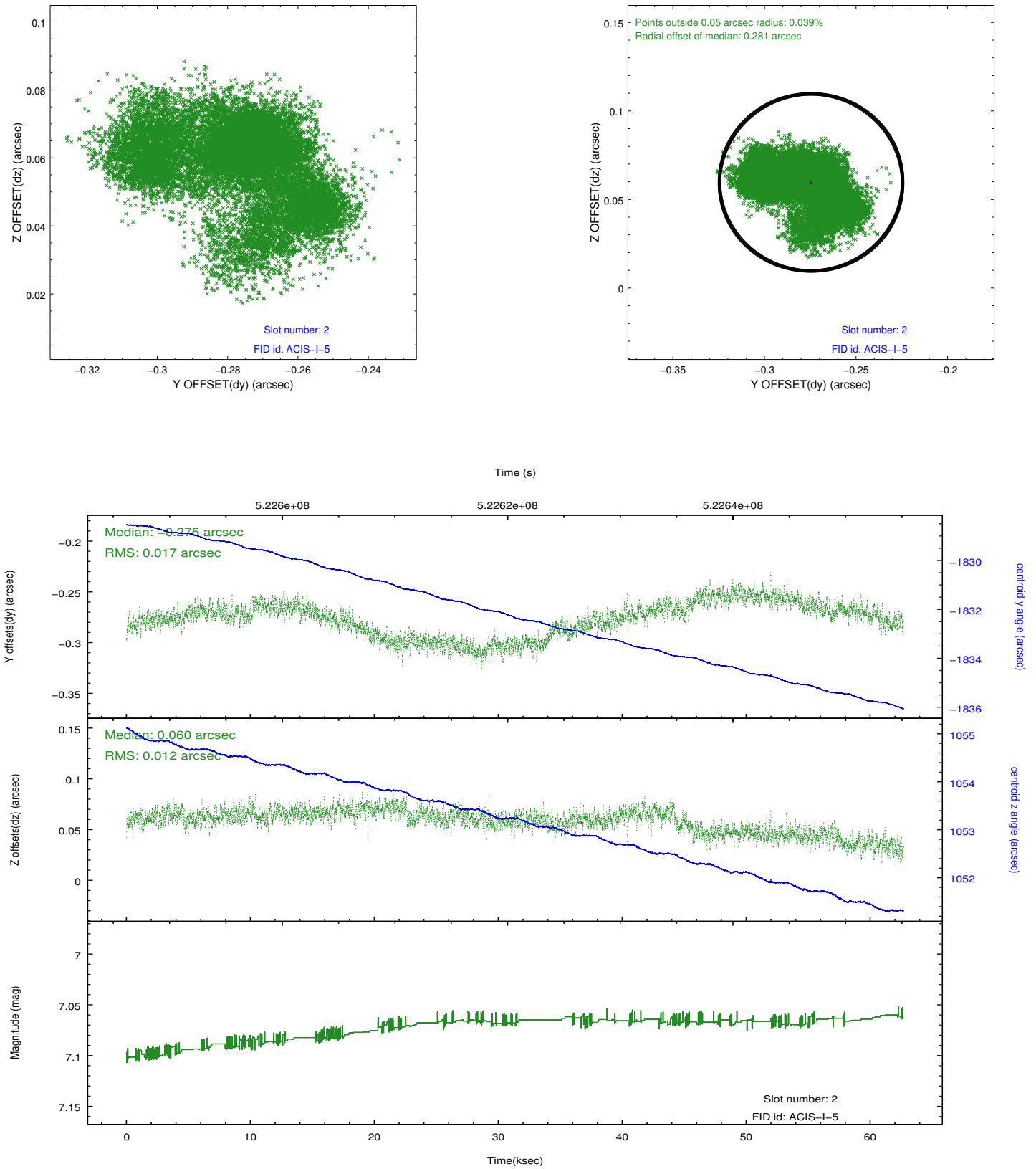
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.07.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	62.470399767339

### A.2 Comments